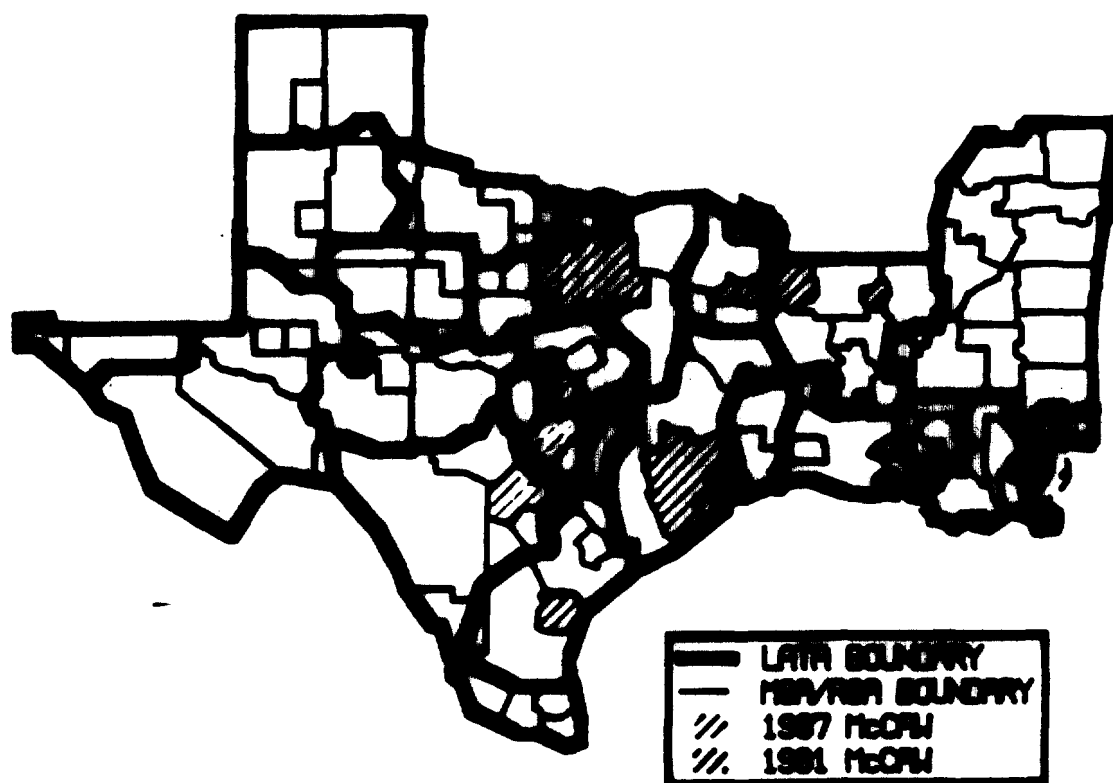
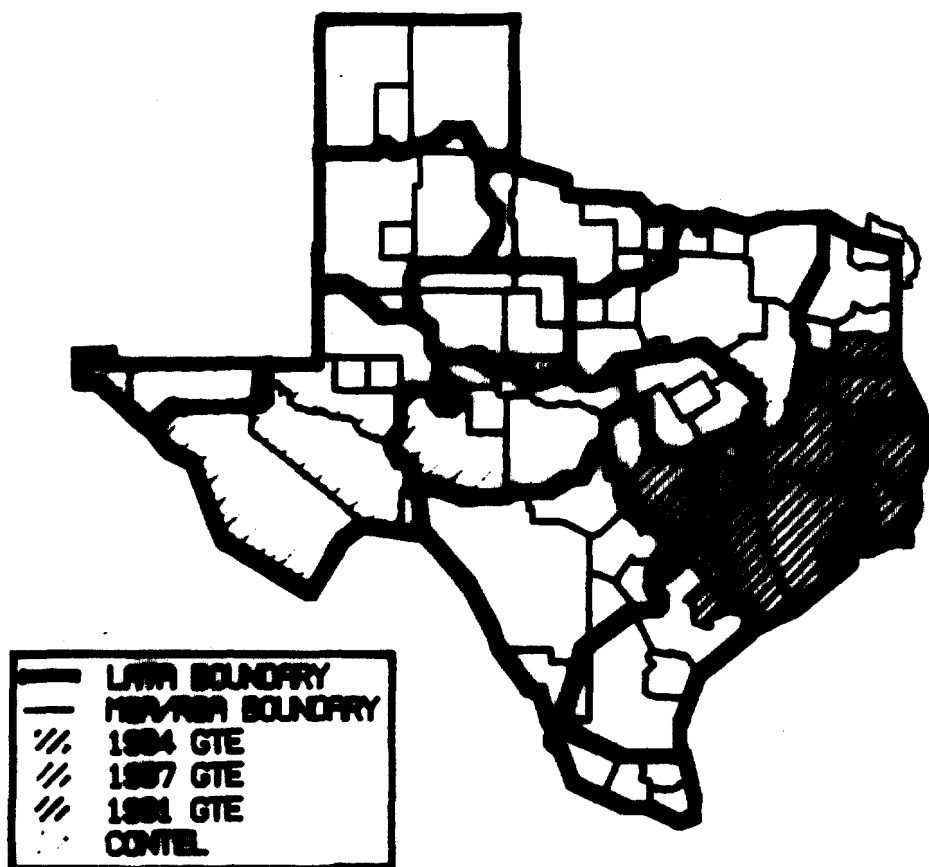
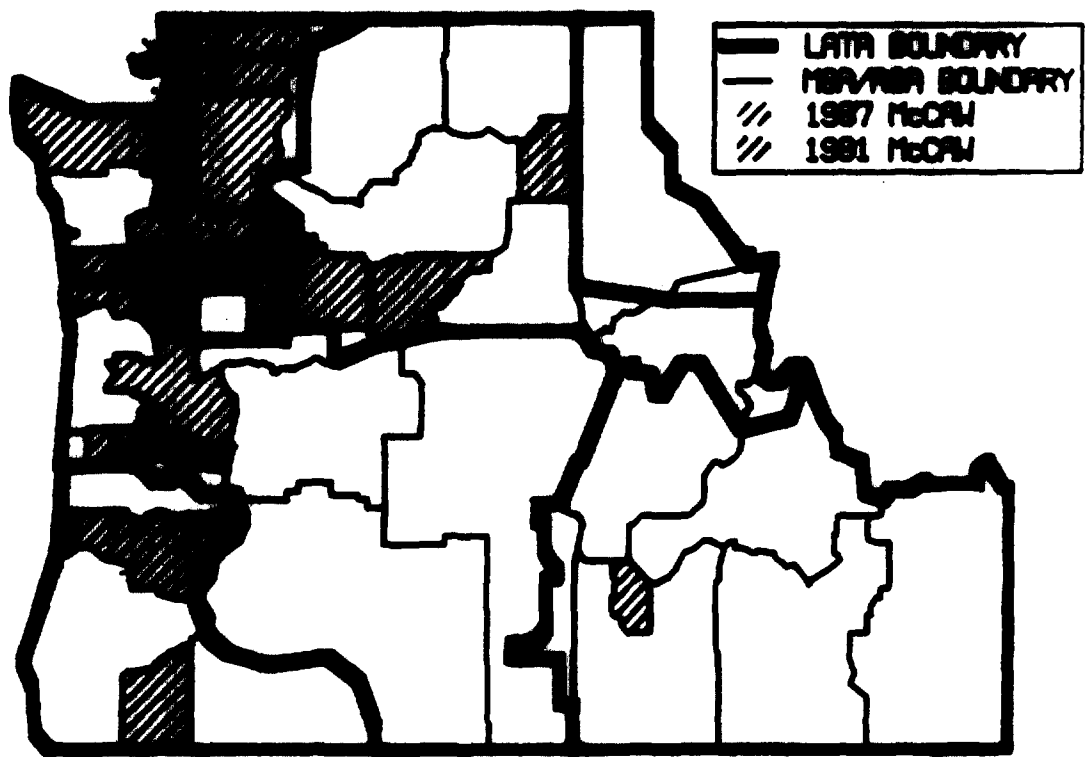
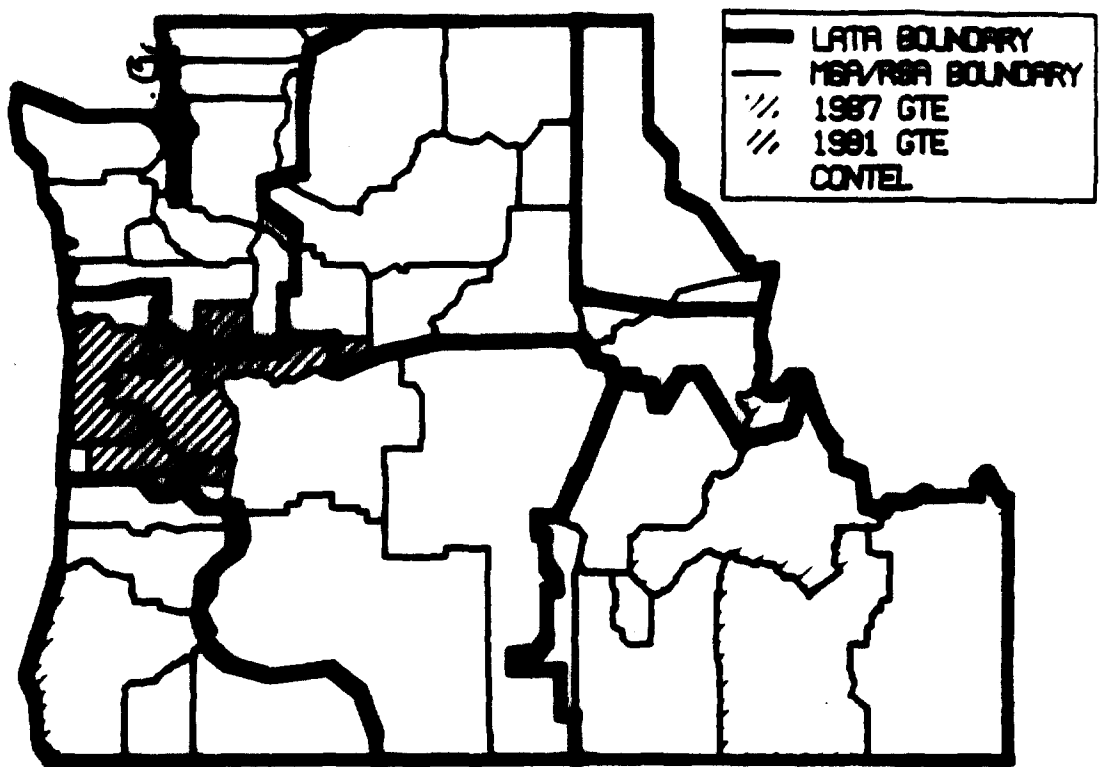


Map 2.4(a)-(b). California Cellular Coverage of (a) GTE; (b) McCaw.



Map 2.5(a)-(b). Texas Cellular Coverage of (a) GTE; (b) McCaw.



Map 2.6(a)-(b). Pacific Northwest Cellular Coverage of (a) GTE; (b) McCaw

Virtually every player in the cellular market has embarked on a similar mission to build and integrate broad geographic areas of service. Centel's 1988 annual report emphasized the company's "clustering strategy";¹³⁹ a trade journal noted a couple years later that "Centel is using the concept [of clustering] with great fervor."¹⁴⁰ Indeed, Centel has recently applied for permission to join four discrete service areas into one seamless unit.¹⁴¹ See MAPS 1.5, 1.6(A)-(B), *supra*. Vanguard has pursued similar aims, as illustrated in MAP 1.8, *supra*. "We have succeeded in creating five regional metro-clusters," Vanguard announced in its 1989 annual report. "[T]he clustering strategy has yielded accelerating penetration and lower operating costs."¹⁴² Century Telephone has built major clusters in the Upper Midwest and the Southwest.¹⁴³ See MAPS 1.11(A)-(B), *supra*. In its 1989 annual report, ALLTEL declares itself to be "particularly pleased" with the way newly acquired RSA licenses "cluster around many of our existing properties, expanding ALLTEL's serving area and enhancing the value of the system to our customers."¹⁴⁴ See MAP 1.9, *supra*. Metro Mobile likewise systematically "group[ed] its interests" so that it would "be viewed as a regional, rather than local, cellular operator."¹⁴⁵ See MAP 1.7, *supra*. SNET has acquired a license in every Connecticut MSA

¹³⁹CENTEL CORP., 1988 ANNUAL REPORT 21 (1988). Centel's 1989 annual report noted that its pursuit of RSA licenses would "enlarge our 'footprint,' or coverage area, as well as offer us strong roaming revenue potential as well-traveled corridors between major markets." CENTEL CORP., 1989 ANNUAL REPORT 22 (1990).

¹⁴⁰Centel Focuses on Southwest and Mexico, MOBILE PHONE NEWS, Sept. 13, 1989, at 1.

¹⁴¹DEAN WITTER, TELECOMMUNICATIONS INDUSTRY: THE ERODING MONOPOLY 5 (Mar. 20, 1991).

¹⁴²As noted in a trade journal: "[T]he company's main goal [is to] secur[e] markets adjacent to their existing markets in order to build market clusters. * * * Building 5 network clusters in 3 geographic areas and linking them with a Network Operations Center (NOC) has been Vanguard's formula for building a successful cellular operation. Vanguard currently services 5.8 million pops, of which 4 million are contiguous." Vanguard Acquires RSA to Complement Cluster, MOBILE PHONE NEWS, Aug. 30, 1989, at 1. As noted in the company's 1989 annual report, Vanguard's "Pennsylvania Supersystem is * * * an integrated network serving a contiguous 11,000 square mile area with a population of more than three million. The Pennsylvania Supersystem * * * is leased with 12 major interstate highways, including the Pennsylvania Turnpike. It serves 16 counties in eastern Pennsylvania * * * and is closely linked to the major cellular markets of New York, New Jersey, Philadelphia, and Baltimore/Washington D.C." VANGUARD CELLULAR SYS., INC., 1989 ANNUAL REPORT 7 (1990).

¹⁴³Toward this end, Century noted in 1987 that it was "actively seeking licenses in selected Rural Service Areas that are contiguous to [its] existing cellular operations." CENTURY TEL. ENTERPRISES, INC., 1987 ANNUAL REPORT 3, 12 (1988).

¹⁴⁴ALLTEL CORP., 1989 ANNUAL REPORT 3, 13 (1989). "By strategically clustering its rural service areas around its metropolitan cellular markets, ALLTEL has not only expanded its overall serving area but can operate those markets more efficiently." *Id.* at 5. ALLTEL recently reaffirmed that such clustering forms "[a] key part of [its] strategy," allowing the company to "maximize the cellular coverage area for [its] customers." ALLTEL CORP., 1990 ANNUAL REPORT 13 (1991).

¹⁴⁵METRO MOBILE CTS, 1989 ANNUAL REPORT 5 (1989); see also METRO MOBILE CTS, INC., 1986 ANNUAL REPORT 2 (1987). Metro Mobile, an independent non-wireline cellular provider, entered the cellular market with the intention of focusing its development "on the Southwest, Southeast and Northeast regions of the

and RSA, together with one in adjacent Springfield, Massachusetts.¹⁴⁶ See MAP 1.10, *supra*. Comcast, a major cable operator,¹⁴⁷ has developed cellular operations along the corridor connecting New York City and Wilmington, Delaware.¹⁴⁸ Comcast recently agreed to purchase Metromedia's non-wireline interests in Philadelphia, New Brunswick, and Long Branch, properties that "fit[] like a glove with [Comcast's] existing cellular holdings."¹⁴⁹

Other Contiguities. Many providers have recognized that competitively important communities of interest are defined not by urban and suburban complexes but by interstate highways. MAPS 2.7, 2.8, 2.9. These providers have assembled service necklaces accordingly. They emphasize continuous highway service in their P.R. materials and sales brochures. GTE, for example, boasts that its Florida customers are "able to travel important roads, * * * such as I75, Highway 17 and State Roads 64 and 70, with uninterrupted service."¹⁵⁰ In California, GTE has touted its contiguous service

country." METRO MOBILE CTS, 1987 ANNUAL REPORT 3 (1988). By utilizing a clustering strategy, the company has been able to "offer subscribers wider areas of uninterrupted service coverage as they travel * * *. In addition, the switches serving certain contiguous markets (specifically, Hartford-Springfield-New London-Pittsfield; New Haven-Bridgeport; and Providence-New Bedford) are technically interfaced to permit, among other things, calls in progress to continue uninterrupted when a caller moves from one market served by one such switch to a contiguous market served by another switch." METRO MOBILE CTS, 1989 ANNUAL REPORT 5 (1990). Metro Mobile has emphasized that "[g]eography has been an important consideration in our development and continues to be essential in our plans for expansion," and noted that it is seeking "smaller markets adjacent to our existing operations." METRO MOBILE CTS, INC., 1988 ANNUAL REPORT 2-3 (1987).

¹⁴⁶CTIA, STATE OF THE CELLULAR INDUSTRY 16 (Spring 1988). Even before it received licenses in both of Connecticut's RSAs, SNET claimed that "[w]e now offer virtually uninterrupted mobile calling between the major metropolitan areas in Connecticut. That coverage is critical to the ever-growing number of travelers from other states who use SNET's mobile phone service while driving the busy New York to Boston corridor." SNET, 1988 ANNUAL REPORT 13 (1988).

¹⁴⁷Comcast has over 2.4 million cable subscribers. See Comcast Corp. Files Registration Statement, 28 NEWSPAPER, May 8, 1991.

¹⁴⁸Kuhn, Cutting Self-Adapted Risk with Convertible Bonds, *FORTUNE*, Apr. 22, 1991, at 44. Comcast's cable operations are concentrated in the same corridor, thus allowing it to "use existing cable architecture to create the "only * * * true hybrid of cellular and cable." COMMUNICATIONS DAILY, Jan. 11, 1991 at 4. Comcast has sought to "expand its metropolitan service area by acquiring adjacent licenses or entering agreements with the operators of those adjacent franchises." Armstrong, Cellular Technology Moving on Rural Pennsylvania, *PHILADELPHIA BUS. J.*, Nov. 28, 1990, § 2, at 38.

¹⁴⁹Comcast Moves into the Big League with Philadelphia Buy, *MOBILE PHONE NEWS*, May 23, 1991 at 2-3. According to the company's president, the acquisition will give Comcast "a contiguous nonwireline network -- a fantastic Northeast corridor." *Id.* at 3.

¹⁵⁰GTE Mobilnet Introduces Cellular Service to Florida's First "Rural Service Area" With Activation of Hardee RSA, *PR NEWSPAPER*, July 24, 1990.

coverage along highways I-80, I-680, and I-780.¹⁵¹ McCaw boasts of its "continuous, uninterrupted" cellular service for over 150 miles along I-35, between San Antonio and Killeen/Temple.¹⁵²

Water traffic is defining yet another set of geographic service areas, often integrated with the land traffic leading to marinas and docks. SNET serves boaters in Long Island Sound;¹⁵³ GTE emphasizes that its California coverage area extends "10 to 12 miles into the Pacific Ocean,"¹⁵⁴ Radiophone informs Louisiana boaters they can "pull[] in the specks [speckled trout] without ever being out of touch."¹⁵⁵ In 1987, a yacht broker in Oregon noted that cellular phone calls could be made "from St. Helens to Cascade Locks" -- about 60 miles along the Columbia River.¹⁵⁶

¹⁵¹GTE Mobilnet's Vallejo-Fairfield-Napa System Goes On Line, PR Newswire, Apr. 9, 1987.

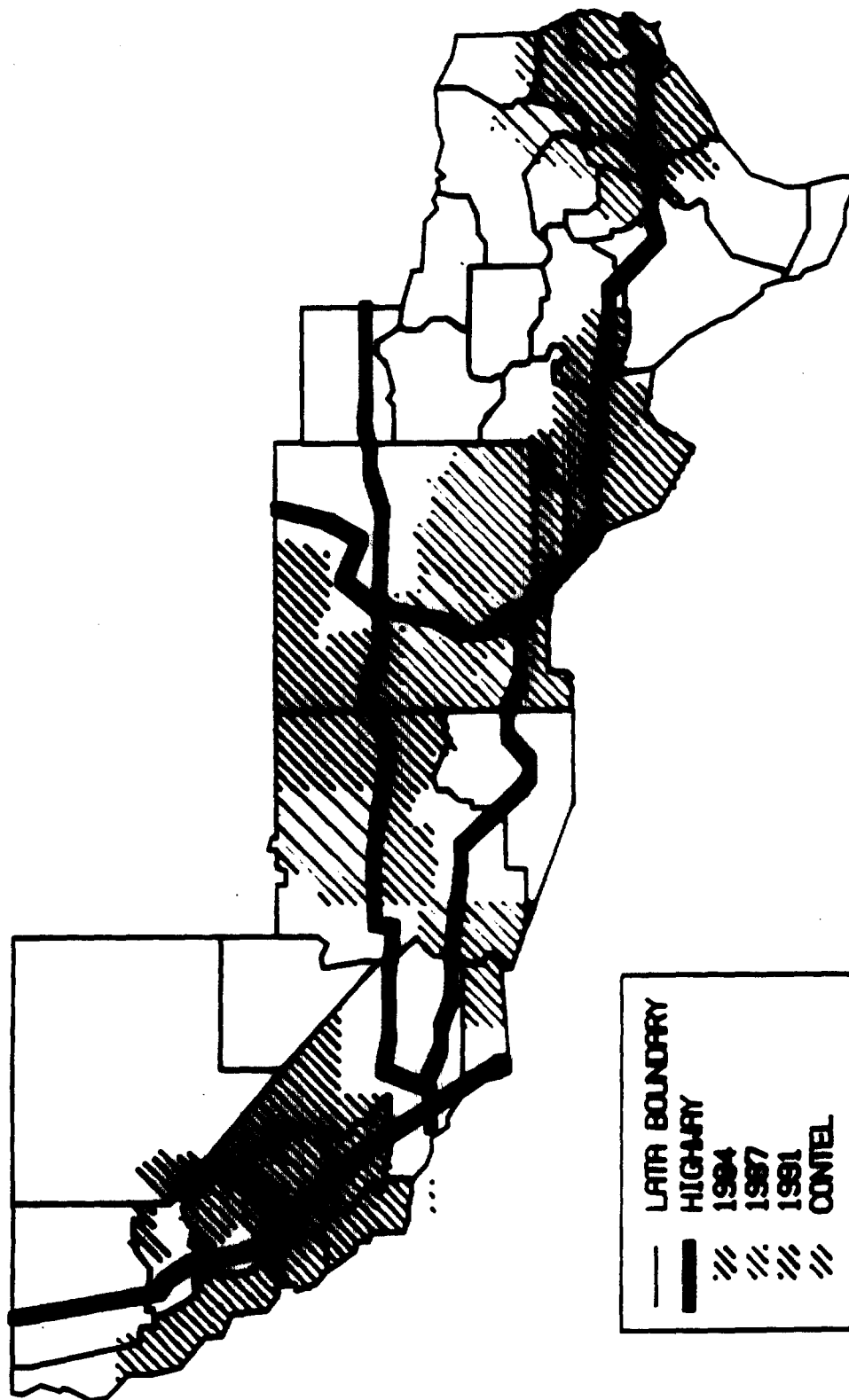
¹⁵²McCaw-Cellular One Sales Brochure & Coverage Map for Austin, TX (current as of Feb. 1991) (brochure entitled *Where We Cover You*).

¹⁵³SNET Expands Its Cellular Mobile Service Into Greenwich, Conn., BUSINESS WIRE, Feb. 29, 1988.

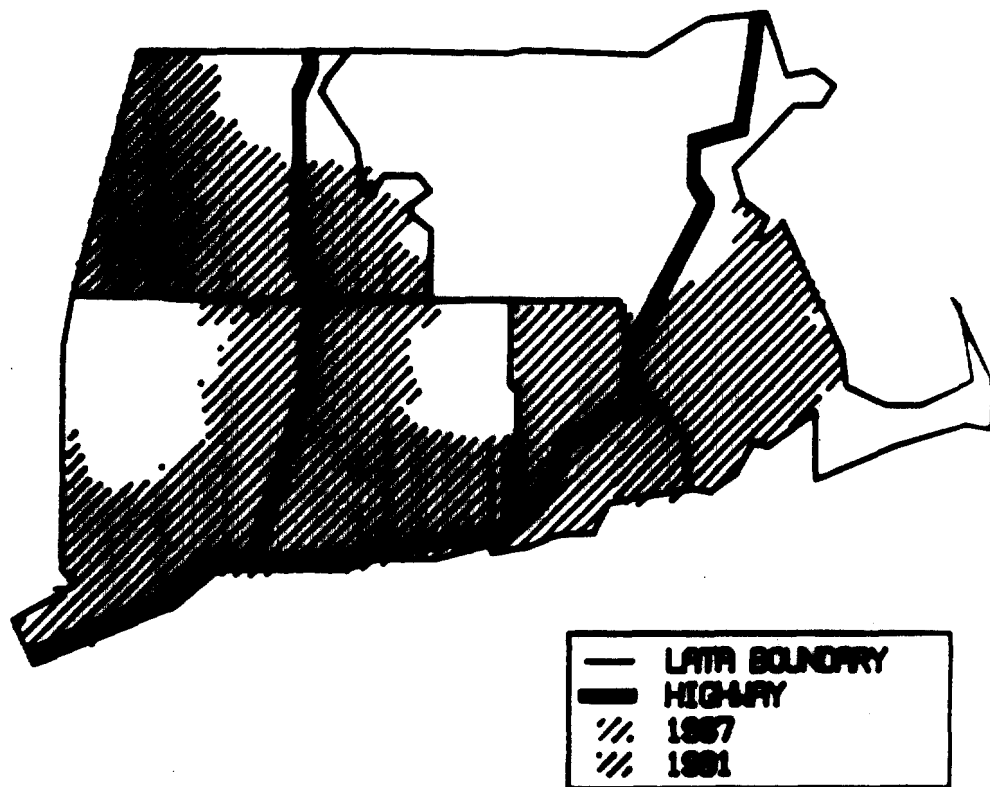
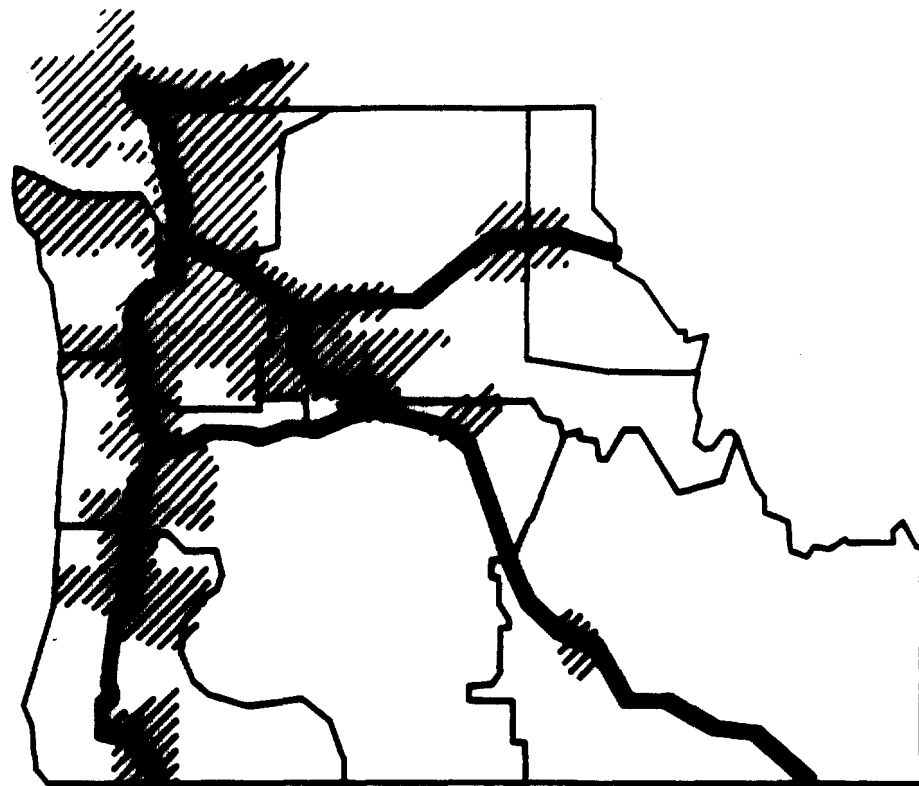
¹⁵⁴GTE Mobilnet Offers Exclusive Airtime Credit to New Cellular Service Subscribers, BUSINESS WIRE, Jan. 19, 1988.

¹⁵⁵RADIOPHONE, THE RADIOPHONE ROAMER GUIDE (Oct. 1988). When TDS's subsidiary U.S. Cellular introduced cellular service in LaCrosse, Wisconsin, one commentator noted that "[o]ne of the best uses of cellular, especially for the LaCrosse-area resident is its ability to be used on the water. Cellular users can take their service with them while fishing, skiing, or just relaxing on the boat!" *Handy, Low-Cost Cellular Phone Service Now Available in LaCrosse*, BUS. TODAY, Aug. 30, 1988, § 1, at 5. "Boat owners are * * * enamored with the privacy and clear connections cellular phones allow them while on the water." Naumann, *The Telephone Road Show Features New Players*, OREGON BUS., July 1987, § 1, at 31.

¹⁵⁶Naumann, *The Telephone Road Show Features New Players*, OREGON BUS., July 1987, § 1, at 31.



Map 2.7. GTE/Contel Cellular Coverage Along Selected Southwest Highways.



Map 2.8. McCaw Cellular Coverage Along Selected Pacific Northwest Highways
Map 2.9. Metro Mobile Cellular Coverage Along Selected New England Highways

The collapse of geographic boundaries in the provision of mobile services is of course more evident still among train and air travelers. GTE's Airfone operates on more than 1,400 commercial aircraft; Railfone serves major Amtrak routes on the east and west coasts.¹⁵⁷ The number of U.S. commercial planes with phones has risen from 37 in 1984 to 1,427 in 1990, and phones are being added to over 200 planes a year.¹⁵⁸ By the end of 1990, approximately 30 percent of the entire U.S. commercial fleet of air carriers was equipped with Airfone.¹⁵⁹ Flyers can currently place calls while flying anywhere over the U.S. and Southern Canada, including Alaska, Hawaii, Puerto Rico, and the Virgin Islands, or within 200 miles of the U.S. coastline.¹⁶⁰ By late 1991, according to GTE, passengers will be able to make calls while flying anywhere in the world.¹⁶¹ In 1990, McCaw announced plans to develop a competing airborne phone service.¹⁶²

McCaw has clearly recognized that telecommunications need not follow communities of interest; it creates them. Thus, one of McCaw's declared objectives is to target "multi-market and government accounts with a 'national network.'"¹⁶³ "We know that multi-market, geographically-dispersed businesses will be important customers," declares McCaw's chairman and CEO, "and cellular will position itself as the primary technology to meet their communications needs."¹⁶⁴

Finally, the development of services in rural areas has uncovered yet another type of opportunity for cellular service, defined by yet another set of fluid and constantly shifting geographic boundaries. It can be very expensive to run telephone lines to isolated residences in rural areas, or to flow meters installed on gas pipelines, or to emergency

¹⁵⁷GTE, 1990 ANNUAL REPORT 34 (1991); *GTE Airfone to Install Seatfone System on More Than 150 Eastern Airlines Aircraft*, PR NEWswire, Sept. 25, 1990. GTE Railfone is available to passengers on Amtrak trains running between Boston and Washington and from Los Angeles to San Diego. COMMUNICATIONS DAILY, Oct. 30, 1990, at 10.

¹⁵⁸GTE, 1990 ANNUAL REPORT 34 (1991); *Lewyn, Ground to Airfone: Prepare for Hostile Fire*, BUS. WEEK, Feb. 12, 1990, at 88.

¹⁵⁹GTE, 1990 ANNUAL REPORT 22, 34 (1991).

¹⁶⁰GTE Airfone and COMBAT to Offer Global Satellite-Communications Service for Airline Passengers. PR NEWswire, Sept. 12, 1990.

¹⁶¹GTE, 1990 ANNUAL REPORT 22 (1991).

¹⁶²McCaw Cellular and Hughes Network Apply to Jointly Offer Airborne Telephone and Data Transmission Services, BUSINESS WIRE, Oct. 23, 1990.

¹⁶³MCCAW CELLULAR COMMUNICATIONS, INC., MCCAW'S GOALS AND VALUES 9 (current as of Jan. 1991).

¹⁶⁴MCCAW CELLULAR COMMUNICATIONS, INC., CELLULAR COMMUNICATIONS: A VISION OF THE FUTURE 11 (Oct. 20, 1989).

call boxes along highways or in parks.¹⁶⁵ For such needs, cellular service may be competitively viable even for stationary users, whose "communities of interest" are defined not by any dense urban population, but by the precise opposite -- the very low population density of a rural area.¹⁶⁶ As one market analyst has noted, "the basic telecommunication infrastructure in rural America is not as accessible as it is in urban areas, so we believe that the incremental value of cellular communications is greater for rural businesses."¹⁶⁷

Cost Efficiencies. Clustering strategies have been impelled, in the first instance, by the customer's demand for wider-area coverage, and by the engineer's difficulty in providing coordination between systems, especially between systems operated by different carriers with different equipment.¹⁶⁸ Providers of cellular service have also recognized, however, that clustered systems can be much cheaper to operate.¹⁶⁹ Despite the industry's rapid growth, many service areas do not offer a sufficient base of customers to justify use of a dedicated MTSO. A provider with clustered licenses can deploy switches in the most efficient manner possible, which will often mean consolidating

¹⁶⁵See, e.g., Chesbro, *A New Era for Navajo Phone Service*, TELEPHONE, Feb. 6, 1988, at 31.

¹⁶⁶For example, GTE Mobile Communications already provides more than 2,500 cellular call boxes along highways in San Diego County and Orange County in California, and in parks in New York. Additional contracts have been awarded for another 2,000 in Riverside and San Bernardino Counties. The company also provides numerous emergency phones on college campuses, in airport parking garages, in parks, and at other public areas throughout the country. *GTE Mobile Communications to Install Fail-Safe Emergency Communications System in New York City*, PR NEWSWIRE, June 19 1980.

¹⁶⁷*Brokerages Give Cellular Inc. an Enthusiastic Thumbs Up*, MOBILE PHONE NEWS, Aug. 2, 1980, at 5.

¹⁶⁸Cluster operators almost invariably standardize their operations on a single manufacturer's switch. See, e.g., *GTE Chooses AT&T as Equipment Supplier to 36 Markets*, MOBILE PHONE NEWS, Dec. 20, 1980, at 6; *Carriers, Vendors Continue Quest for Cellular Super-Networks*, MOBILE PHONE NEWS, June 7, 1980, at 1.

¹⁶⁹As the California Public Utilities Commission found, in a recent review of McCaw's California cluster:

The coordination of [McCaw's] cellular systems into an operational network of regional systems would enable [McCaw] to enjoy functional and competitive advantages. The cluster strategy enables [McCaw] to concentrate switching functions using a small number of switches in each region, and to avoid committing capital to the installation of individual switches in each MSA. It allows [McCaw] to offer to its subscribers expanded service areas and enhanced services, such as automatic roaming and reduced roaming rates. The addition of Cagal to [McCaw's] San Francisco Bay Area cluster would increase the benefits [McCaw] can provide both to Cagal's customers and to customers of other [McCaw] affiliates serving the Bay Area cluster.

service across FCC licensing boundaries. Instead of placing separate switches in San Antonio, Corpus Christi, and McAllen/Edinburg/Mission, for example, an operator might serve all of those areas directly out of San Antonio.¹⁷⁰

RHC affiliates aside, all major cellular providers have recognized and taken steps to exploit switch and other efficiencies of clustered operation. McCaw's 1987 annual report stated: "Our efforts in acquiring cellular franchises have been focused on the rational assembly of adjacent properties which will yield us operating efficiencies and, in many cases, competitive advantages."¹⁷¹ The company's 1989 annual report states: "Clustering offers McCaw Cellular operating efficiencies, capital savings and service advantages."¹⁷² Elsewhere the company has declared that "regional consolidations and coalitions are what create * * * the greatest economies for operators like ourselves. * * * [T]he size of the service area within which we can create an integrated system is the key to our operating economies."¹⁷³

Many smaller providers have reached similar conclusions. Centel's 1988 annual report states that the company "is achieving efficiencies by clustering operations on a regional basis * * *."¹⁷⁴ Century Telephone Enterprises notes that clustering agreements "are in keeping with [Century's] strategy of clustering MSA and RSA properties along major traffic corridors for maximum operating efficiency * * *."¹⁷⁵ In its 1989 annual report, Vanguard points out that "[m]etro-clustering * * * allows the sharing of switching equipment and system administration between two or more service areas."¹⁷⁶ Metro Mobile has found that "group[ing] its interests * * * has resulted in a more efficient operation of its system [and] economies of scale which would not be available to smaller or more fragmented operations."¹⁷⁷ Mobile Phone News has noted these efficiencies

¹⁷⁰The decree court has also recognized the possibility of such efficiencies. In 1983, for example, the court acknowledged that confining the RHC affiliates to LATAs, at least in the areas for which exceptions were then being sought, would entail "a substantial loss in the economic efficiencies which could be produced by integrated, multi-LATA systems." *United States v. Western Elec. Co.*, 578 F. Supp. 643 (1983).

¹⁷¹MCCAW CELLULAR COMMUNICATIONS, INC., 1987 ANNUAL REPORT 3 (1988).

¹⁷²MCCAW CELLULAR COMMUNICATIONS, INC., 1989 ANNUAL REPORT 4 (1989). See also MCCAW CELLULAR COMMUNICATIONS, INC., 1988 ANNUAL REPORT 3 (1988) ("Clustering typically * * * allows more efficient regional and national marketing programs, dealer networks and customer service programs. And we benefit from significant operating and engineering economies of scale as well.").

¹⁷³MCCAW CELLULAR COMMUNICATIONS, INC., CELLULAR COMMUNICATIONS: A VISION OF THE FUTURE 7 (Oct. 20, 1989).

¹⁷⁴CENTEL CORP., 1988 ANNUAL REPORT 21 (1989).

¹⁷⁵Century Telephone Enterprises Inc., *FIL WORLD*, Nov. 28, 1988, at 108.

¹⁷⁶VANGUARD CELLULAR Sys., INC., 1989 ANNUAL REPORT 6 (1990).

¹⁷⁷METRO MOBILE CTS, 1990 ANNUAL REPORT 4 (1991).

on several occasions. "The idea of acquiring adjacent cellular markets and running the markets as one mega system is not new," the journal reported in August 1980. "When the Metropolitan Statistical Areas (MSA) licenses were first granted, many companies set out to form wireline or non-wireline clusters * * *. Starting up markets adjacent to operating markets offers decreased start-up and service costs, accelerated penetration and lower operating costs. Buying equipment for multiple systems or switch sharing also affords lower costs."¹⁷⁸ Less than a month later the journal reported: "[b]y operating adjacent markets, a company is * * * able to share switches, marketing, management and engineering teams and economies of purchase."¹⁷⁹

Communities of Interest and the RHCs

While the FCC has freely permitted technology and market forces to bridge (and functionally erase) the geographic boundaries specified in individual radio licenses, RHC affiliates have continued to operate under a second, quite separate set of geographic constraints. The divestiture decree provided that the RHCs' Bell companies would not be permitted to offer "interexchange" services and defined "Local Access and Transport Areas" ("LATAs") to give meaning to that prohibition. A total of 164 LATAs were established at divestiture, ranging in size from a single city to an entire state. The average LATA included about 500,000 landline subscribers. LATA boundaries were drawn with a pragmatic eye on the established landline network.¹⁸⁰

No one involved in the divestiture negotiations had given much thought to how LATA boundaries would affect the provision of mobile services. Mobile services were

¹⁷⁸Vanguard Acquires RSA to Complement Cluster, MOBILE PHONE NEWS, Aug. 30, 1980, at 1.

¹⁷⁹Centel Focuses on Southwest and Mexico, MOBILE PHONE NEWS, Sept. 13, 1980, at 1.

¹⁸⁰The DOJ explained in its 1982 Competitive Impact Statement how "the geographic scope of the BOC's services are to be established":

In general, it is expected that such areas will be large enough to comprehend contiguous areas having common social and economic characteristics but not so large as to defeat the intent of the decree to separate the provision of long-distance services from the provision of local exchange service. Court approval thus is required if exchange areas are to include more than one standard metropolitan statistical area or to cross a state line.

Competitive Impact Statement at 30, United States v. Western Elec. Co., No. 82-0192 (D.D.C. Feb. 2, 1982). In its later comments on the proposed LATA boundaries, the Department emphasized that "[t]he structure of the telephone network is also important to the design of the LATAs." DOJ therefore planned to consider the "existing configuration of telephone facilities" in defining "the boundaries of local telecommunication markets" and found it "appropriate to place significant weight on the extent to which [a proposed LATA configuration] would disrupt local distribution systems." Response of the United States to Comments Received on the BOC LATA Proposals at 6, 22, 37, United States v. Western Elec. Co., No. 82-0192 (D.C. Nov. 23, 1982) ("DOJ Response").

simply not an issue in the original lawsuit against the Bell System.¹⁸¹ According to its own contemporaneous statements on the subject, AT&T did not believe that LATA boundaries applied to mobile services at all.¹⁸² The FCC likewise had not understood that the proposed decree was "designed to preclude the Bell Operating Companies from providing cellular services," nor had the Commission received any hint from DOJ that LATA boundaries might apply to radio services.¹⁸³

When the issue came into dispute, AT&T argued vigorously that imposing LATA boundaries on RHC mobile services would make no economic or technical sense and would serve no legitimate competitive purpose.¹⁸⁴ The FCC likewise urged that LATA boundaries should not be applied to cellular service, noting that "there is virtually no competitive risk involved in making clear that the BOCs may engage in the cellular radio business to the same geographical extent as any other entity" and that imposing LATA boundaries on the RHCs' mobile affiliates would put them at a "potentially serious" competitive disadvantage with competitors offering a "more geographically expansive service."¹⁸⁵

¹⁸¹As AT&T would point out, "[t]he Justice Department never even alleged anticompetitive conduct in the mobile services market in this case and abandoned the allegation made in *United States v. AT&T*, No. 74-1698. Compare, Complaint, ¶ 29C, with Plaintiff's Third Statement of Contentions and Proof." AT&T Response to Comments and Objections Relating to the Proposed LATA Boundaries at 30, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Nov. 23, 1982) ("AT&T Response").

¹⁸²In a November 1982 filing, AT&T confidently stated: "[T]he Decree does not - and, in any event, should not - prohibit the proposed BOCs from providing public radio services - which have been established to be 'exchange telecommunications services' - in whatever service areas are otherwise authorized by regulatory authorities." AT&T Response at 2 n.*. AT&T thus urged that "no special exception is required under the Decree to enable the BOCs and their affiliates to provide public radio services within the areas allowed by regulatory authorities." *Id.* at 37.

¹⁸³99 F.C.C.2d at 68; FCC Reply at 2. The FCC explained its plan to allocate licenses that were geographically contiguous with SMAs, and pointed out that "[t]he Department has never suggested in the course of the cellular rulemaking that some other geographic area, such as LATAs, should be used for determining the limits of the BOCs' cellular service." FCC Reply at 2. All of the applications that AT&T's AMPS had filed or planned to file had been "designed [in line with the FCC's directive] to conform with the FCC's SMA standard rather than the LATAs." *Id.* at 3.

¹⁸⁴"[T]he technology, economics, customer requirements, and competitive implications of mobile radio services are so different from those of landline services that it would be irrational and contrary to any reasonable interpretation of the Decree or antitrust policies to confine the BOCs' mobile radio systems to the precise LATAs established for landline service." AT&T Response at 26-27; see also The Bell System's Further Memorandum in Support of Its Request for a Ruling that the Regional Companies are Permitted to Provide Public Radio Service Without Regard to LATA Boundaries at 4, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. May 9, 1983) ("LATAs are simply irrelevant to mobile radio services. * * * Landline LATAs do not reflect the entirely different characteristics of the services designed to reach moving vehicles or other mobile units.").

¹⁸⁵FCC Reply at 2, 4. The Commission also pointed out that as licensing proceeded to cover smaller urban and then rural communities, the need to integrate these with major urban systems would become pressing. *Id.* at 5, 6.

The Department of Justice, followed by the decree court,¹⁸⁶ took the position that mobile services should be fully subject to restrictions on interLATA services.¹⁸⁷ The Department did not rule out relaxing LATA boundaries for mobile services; it simply insisted that any deviations should be handled on a case by case basis.¹⁸⁸

That there would be many such cases to handle was evident from the beginning, as both AT&T and the FCC took pains to note. The paging market, as we have seen, was rapidly becoming regional or national in scope. With cellular, as discussed in detail in this chapter, the FCC was working with one set of maps, DOJ and the decree court with quite another.¹⁸⁹ RHC-affiliated providers of paging services were going to collide with LATA boundaries very soon; providers of cellular services only somewhat later, as the FCC licensing process proceeded and the number of licenses issued to adjacent service areas multiplied.¹⁹⁰

Paging Services. The RHCs recognized from the outset that unless they could expand the geographic scope of their paging operations they would quickly lose competitive ground to other providers not subject to any geographic restrictions. AT&T

¹⁸⁶United States v. Western Elec. Co., 578 F. Supp. 643, 647 (D.D.C. 1983) (the provision of "any and all mobile radio services without regard to LATA boundaries . . . would have been entirely inconsistent with the terms and purposes of the decree, and the Court would not have authorized it").

¹⁸⁷DOJ Response at 69-69.

¹⁸⁸Response of the United States to the Court's Memorandum of April 22, 1983 Concerning Public Radio Services at 4, United States v. Western Elec. Co., No. 82-0192 (D.D.C. May 9, 1983).

¹⁸⁹Moreover, the decree court has readjusted the LATAs themselves no less than ninety-nine times since 1983. The LATA boundaries shown on the maps in this report reflect the LATAs as originally approved by the court, as represented by Ashton Tate's MapMaster LATA Boundary Software. The 164 LATAs established by the court are not always contiguous and do not cover the entire United States. The intervening areas are served by independent carriers and are bounded by various LATAs. Therefore, such independent service areas serve a similar function to LATAs: they define boundaries across which the RHCs cannot provide service without a waiver. These areas, in addition to the 164 LATAs, are demarcated on the maps.

¹⁹⁰DOJ's view of state waiver requests have evolved steadily. In 1985, the Department opposed a blanket waiver on the ground that the request was vague and potentially too broad, and that no positive case for a waiver had been presented. Memorandum of the United States in Response to May 9, 1983 Submissions Concerning FCC Provision of Public Radio Services, United States v. Western Elec. Co., No. 82-0192 (D.D.C. May 19, 1985). Thereafter, DOJ generally supported requests for specific waivers of similar character, subject to various restrictions. By 1987, DOJ was ready to recommend general geographic relief for mobile services (albeit still with an equal access condition), having concluded that "the competitive danger on which the current restriction is based would be extremely attenuated with respect to such services." Report and Recommendations of the United States Concerning the Line of Business Restrictions Imposed on the Bell Operating Companies by the Modification of Final Judgment at 56, United States v. Western Elec. Co., No. 82-0192 (D.D.C. Feb. 2, 1987).

immediately sought a general waiver to permit the RHCs to provide wide-area paging. The decree court turned down the request on November 1, 1983.¹⁹¹

Paging concerns affiliated with the RHCs continued to press for geographic relief. TABLES 2.5, 2.6. In 1984, Ameritech and Bell Atlantic filed waiver requests to provide one-way interLATA paging services in several areas. Nineteen months later, the court ruled that Bell Atlantic could provide interLATA paging services in parts of Virginia, Pennsylvania, and New Jersey, and that Ameritech's paging services could cross LATA boundaries in Michigan and Illinois.¹⁹² In early 1986, the court granted in part PacTel's waiver request to provide both intraservice and interexchange paging in Arizona, Kentucky, Georgia, Florida, Texas, and Northern California service areas.¹⁹³ NYNEX then received a waiver to provide one-way interLATA paging in several service areas in Connecticut, New York, Pennsylvania, New Jersey, Maryland, and Virginia.¹⁹⁴ In 1987, the court granted in part a waiver that allowed Southwestern Bell to provide interexchange paging services in various parts of New York, California, Washington, D.C., Maryland, Illinois, Pennsylvania, and Texas.¹⁹⁵ The court then granted two more waiver requests,

¹⁹¹ 578 F. Supp. at 653 n.43.

¹⁹² *United States v. Western Elec. Co.*, 1985-1 Trade Cas. (CCH) ¶ 67,146 (D.D.C. 1985). The waiver approval was subject to several conditions, however, including the use of separate subsidiaries. *Id.* at 62,921.

Four years earlier, by contrast, the FCC had determined that separate subsidiaries were unnecessary for paging services. The Commission had explained:

[E]ntry barriers for the 900 MHz paging market are quite low. * * * In addition, with 40 frequencies available in this allocation, the potential exists for a large number of paging operators to enter the 900 MHz market. Our experience with wireline participation in one-way paging services indicates that a separate subsidiary requirement is unnecessary. For many years, RHCs have competed with wireline carriers in providing paging services. The participation of wireline carriers in providing paging services has not, in the past, demonstrated a need for imposing structural separation requirements on these carriers to insure competition.

89 F.C.C.2d at 1345.

¹⁹³ PacTel initially submitted its request to the Department of Justice on July 1, 1985, in connection with its planned acquisition of Communications Industries. The court allowed PacTel to engage in "[i]ntraexchange telecommunications outside of Pacific's California-Nevada region, [including] paging," and in interexchange paging in several Arizona, Kentucky, Georgia, Florida, Texas, and Northern California service areas. Order at 2, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Feb. 28, 1986). Shortly thereafter, Bell Atlantic, after having first been ordered to divest itself of its out-of-region paging services, was permitted to provide out-of-region, intraLATA paging. Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. May 14, 1986).

¹⁹⁴ Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Aug. 8, 1986).

¹⁹⁵ Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Sept. 22, 1987).

Table 2.5. Paging Services Waivers.

Date Granted	Location	Requestor
Nov. 1, 1983	InterLATA paging in nine specific areas: <ul style="list-style-type: none"> - New York - Philadelphia - Boston, Worcester, Providence - Baltimore, Washington, D.C. - Milwaukee, Racine, Kenosha - Memphis, North Memphis - Cincinnati, Columbus, Dayton - Detroit, Toledo - Omaha, North Iowa 	AT&T
Feb. 26, 1986	Communications Industries Acquisition: <ul style="list-style-type: none"> - Interexchange paging out of region 	Pacific Telesis
May 14, 1986	Interexchange paging out of region (A Beeper Co.)	Bell Atlantic
June 20, 1986	InterLATA one-way paging: <ul style="list-style-type: none"> - Norfolk, Richmond - Philadelphia, Harrisburg, Northeast Pennsylvania - Philadelphia, New Jersey - Philadelphia, South New Jersey, Delaware Valley, and Atlantic Coastal LATA 	Bell Atlantic
June 20, 1986	InterLATA one-way paging: <ul style="list-style-type: none"> - Michigan, Illinois 	Ameritech
Aug. 8, 1986	InterLATA one-way paging: <ul style="list-style-type: none"> - Connecticut - Rochester, York - North New Jersey, Delaware Valley, Philadelphia, Salisbury - Calverton, Richmond 	NYNEX
Sept. 22, 1987	Metromedia Acquisition; MultLATA paging: <ul style="list-style-type: none"> - Connecticut - Baltimore - East Massachusetts - New Hampshire - North New Jersey - Rhode Island - Tampa - Philadelphia - Chicago - Dallas - San Antonio - Los Angeles 	Southwestern Bell
June 16, 1988	MultLATA one-way paging: <ul style="list-style-type: none"> - Florida, Michigan - California, Nevada, Arizona 	Pacific Telesis
June 16, 1988	MultLATA one-way paging: <ul style="list-style-type: none"> - Philadelphia, Atlantic Coastal, Delaware Valley, North New Jersey, Capital, and Northeast Pennsylvania LATAs 	Southwestern Bell
Feb. 16, 1989	MultLATA one-way paging: <ul style="list-style-type: none"> - No geographic limitations 	RHCs

allowing Pacific Telesis to provide interLATA paging services in Florida, Michigan, California, Nevada, and Arizona, and Southwestern Bell to provide similar services throughout various Pennsylvania and New Jersey LATAs.¹⁹⁶ The average time elapsed between when these waivers were first sought, and when they were granted, was about eight months.

Table 2.6. Paging Services Waiver Requests.				
Company	DOJ	Court	Disposition	Notes
AT&T	-	May 19, 1983	Nov. 1, 1983	Granted
Ameritech	Sept. 7, 1984	Dec. 11, 1985	June 20, 1986	Granted
Bell Atlantic	Nov. 26, 1984	Dec. 11, 1985	June 20, 1986	Granted
Pacific Telesis	July 1, 1985	Dec. 9, 1985	Feb. 28, 1986	Granted in part
Bell Atlantic	Jan. 17, 1986	Apr. 3, 1986	May 14, 1986	Granted in part
NYNEX	Feb. 21, 1986	July 2, 1986	Aug. 8, 1986	Granted
Southwestern Bell	June 30, 1986	Nov. 26, 1986	Sept. 22, 1987	Granted in part
Southwestern Bell	Dec. 12, 1986	Sept. 15, 1988	-	Superseded*
Pacific Telesis	Nov. 4, 1987	May 12, 1988	June 16, 1988	Granted
Southwestern Bell	Feb. 5, 1988	May 12, 1988	June 16, 1988	Granted
BellSouth	Apr. 29, 1988	Sept. 15, 1988	Apr. 18, 1989	Granted
Southwestern Bell	May 27, 1988	Sept. 15, 1988	-	Superseded*
US West	June 14, 1988	Sept. 15, 1988	-	Superseded*
Bell Atlantic	July 1, 1988	Sept. 15, 1988	-	Superseded*
Ameritech	Aug. 26, 1988	Sept. 19, 1988	-	Superseded*
NYNEX	Nov. 2, 1988	Dec. 9, 1988	-	Superseded*
Southwestern Bell	Dec. 2, 1988	Dec. 28, 1988	-	Superseded*
Pacific Telesis	Dec. 5, 1988	Dec. 28, 1988	-	Superseded*
RHCs	-	Sept. 15, 1989	Feb. 16, 1989	Granted*

* On Sept. 15, 1989, the Department of Justice proposed a blanket multiLATA paging waiver to apply to all RHCs, regardless of geographic region served. By granting the Department's motion the court rendered decisions on specific paging waiver requests unnecessary.

In February 1989, six years after AT&T first requested such relief for the RHCs, the decree court finally granted a blanket waiver permitting all RHCs to provide one-way paging over any geographic range.¹⁹⁷ The court noted that "one-way paging constitutes a separate market from landline interexchange telecommunications services" and that full relief from the interexchange restriction posed no threat to competition in that

¹⁹⁶ Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. June 16, 1986) (granting Pacific Telesis waiver); Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. June 16, 1986) (granting Southwestern Bell waiver).

¹⁹⁷ Memorandum and Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Feb. 16, 1989). The court's decision resolved the requests submitted to the Department by the following RHCs: Southwestern Bell (Dec. 12, 1986; May 27, 1988; Dec. 2, 1988), US West (June 14, 1988), Bell Atlantic (July 1, 1988), Ameritech (Aug. 26, 1988), NYNEX (Nov. 2, 1988), and Pacific Telesis (Dec. 5, 1988).

market.¹⁹⁸ The court further acknowledged that "the paging industry has developed independently of LATA boundary constraints" and that "in order to compete effectively in the paging market, paging services must be offered on an area-wide basis."¹⁹⁹ With the granting of the blanket waiver, it became "unnecessary [there]after for Regional Companies to apply for specific waivers for such operations."²⁰⁰

Cellular Services. Wide-area cellular services have developed on a slower timetable than wide-area paging, because the service itself is a much more recent arrival in the marketplace. Nevertheless, a year before divestiture, with the cellular industry still in its infancy, AT&T was already able to identify nine specific areas in which cellular systems under development would conflict with the proposed LATAs.²⁰¹ The decree court promptly resolved these by granting appropriate waivers.²⁰²

The paucity of LATA/FCC-license conflicts in 1983 was not surprising. There were, at that time, few FCC licenses to speak of. Moreover, the basic geographic building blocks in the FCC licensing process (MSAs and RSAs) were substantially smaller than the decree's LATAs²⁰³ and at that point the FCC had issued licenses to only a few of the

¹⁹⁸*Id.* at 3-4.

¹⁹⁹*Id.* at 4.

²⁰⁰*Id.* at 9. The court did, however, impose as a condition of the waiver that the RHCs lease the inter-exchange links for multi-LATA paging services from renationalized interexchange carriers. *Id.* The Court of Appeals subsequently reversed that condition and remanded to the district court for reconsideration, noting that "it is not apparent on this record how [the RHCs] could - let alone would - 'impede competition' in the markets the decree is designed to protect" if they owned and operated their own interLATA paging links. *United States v. Western Elec. Co.*, No. 89-5106 (D.C. Cir. Oct. 17, 1990) (unpublished per curiam).

²⁰¹These included: (1) Boston, Worcester, and Providence; (2) New York City and Northern New Jersey; (3) Philadelphia and Southern New Jersey; (4) Baltimore and Washington; (5) Memphis and West Memphis; (6) Cincinnati, Columbus, and Dayton; (7) Detroit and Toledo; (8) Omaha and Western Iowa; and (9) Seattle and Bellingham.

²⁰²578 F. Supp. 648. The court recognized that LATA boundaries had been defined by reference to land-line rather than mobile calling patterns, and that "the technological and competitive issues implicated by mobile radio services are, in some locations, significantly different" from those relevant to landline services. It acknowledged that rigidly restricting RHC cellular systems to LATA boundaries would "substantially inconvenience[]" their customers. The court emphasized specifically problems of inter-system handoff of an on-going call when a moving vehicle crossed a LATA boundary. It also acknowledged that imposing LATA boundaries on mobile services would entail "a substantial loss in the economic efficiencies which could be produced by integrated, multi-LATA systems" because of the unnecessary proliferation of MTSCs. *Id.* at 648, 649.

²⁰³The United States is divided into 300 MSAs (excluding 6 MSAs in the Gulf of Mexico and Puerto Rico for which there are no corresponding LATAs) and 418 RSAs (excluding 10 RSAs in American Samoa, Guam, Northern Mariana, and Puerto Rico), compared to 164 LATAs. See CTIA, STATE OF THE CELLULAR INDUSTRY 34-36 (Spring 1990); *United States v. Western Elec. Co.*, 588 F. Supp. 929, 1011-1057 (D.D.C. 1983); *United States v. Western Elec. Co.*, 588 F. Supp. 1057, 1103-1107 (D.D.C. 1983).

largest MSAs. Since many LATAs had been drawn around large MSAs, the possibilities for conflict were slight.

As the FCC continued to issue licenses, the number of conflicts multiplied. Moreover, as the licensing map filled out, the number of opportunities for integrated, wide-area service increased rapidly. MAP 2.10. Southwestern Bell, at the request of the Cellular Telecommunications Industry Association, recently analyzed the conflicts between LATAs and FCC licensing areas nationwide. The study found that opportunities for LATA conflicts were multiplying rapidly.²⁰⁴ As the accompanying maps reveal, the completion of the RSA licensing process has created a considerable number of conflicts between FCC licenses and LATA boundaries.²⁰⁵ MAPS 2.11(A)-(G). Moreover, every contiguous cellular service area, even if aligned with LATA boundaries, presents an additional potential opportunity for conflict, as urban sprawl evolves and communities of interest shift.

²⁰⁴[W]hen all 733 MSAs and RSAs are in operation there will be approximately 1367 areas where cellular systems will adjoin and almost inevitably overlap. Of these, approximately 1,135 will involve LATA intersections." Application for a Waiver to Permit Southwestern Bell Corporation to Provide Inter-system Hand-Off Between Adjacent Cellular Systems at 26-27, *United States v. Western Elec. Co.*, No. 82-0192 (DOJ July 21, 1988) (footnotes omitted). The affidavit of Larry E. Southern, Manager-Business Relations for Southwestern Bell Mobile Systems, attached as Appendix 4 to Southwestern Bell's waiver request, further explains the results of the study:

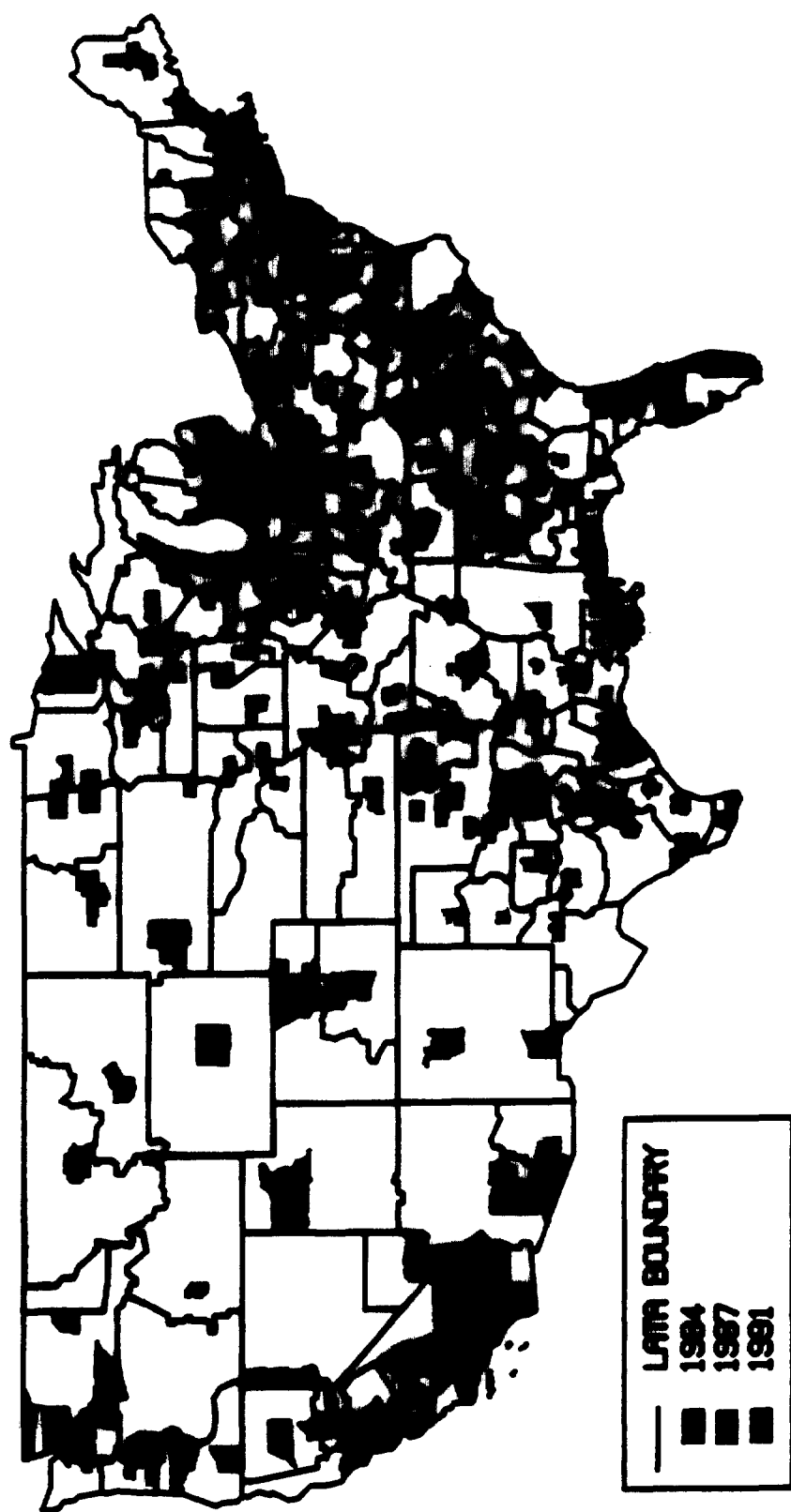
Assuming that each MSA operator will want intersystem hand-off with all adjoining cellular systems, my research concluded that the operators in 286 of the 305 MSAs would encounter a LATA problem. Of these 286 situations, approximately 52% currently involve a Regional Bell Holding Company.

In addition, there are approximately 1,367 possible adjacent system abutments (MSA/MSA, MSA/RSA, and RSA/RSA). Of those possible adjacent system combinations, approximately 1,135, or 82%, include a LATA intersection.

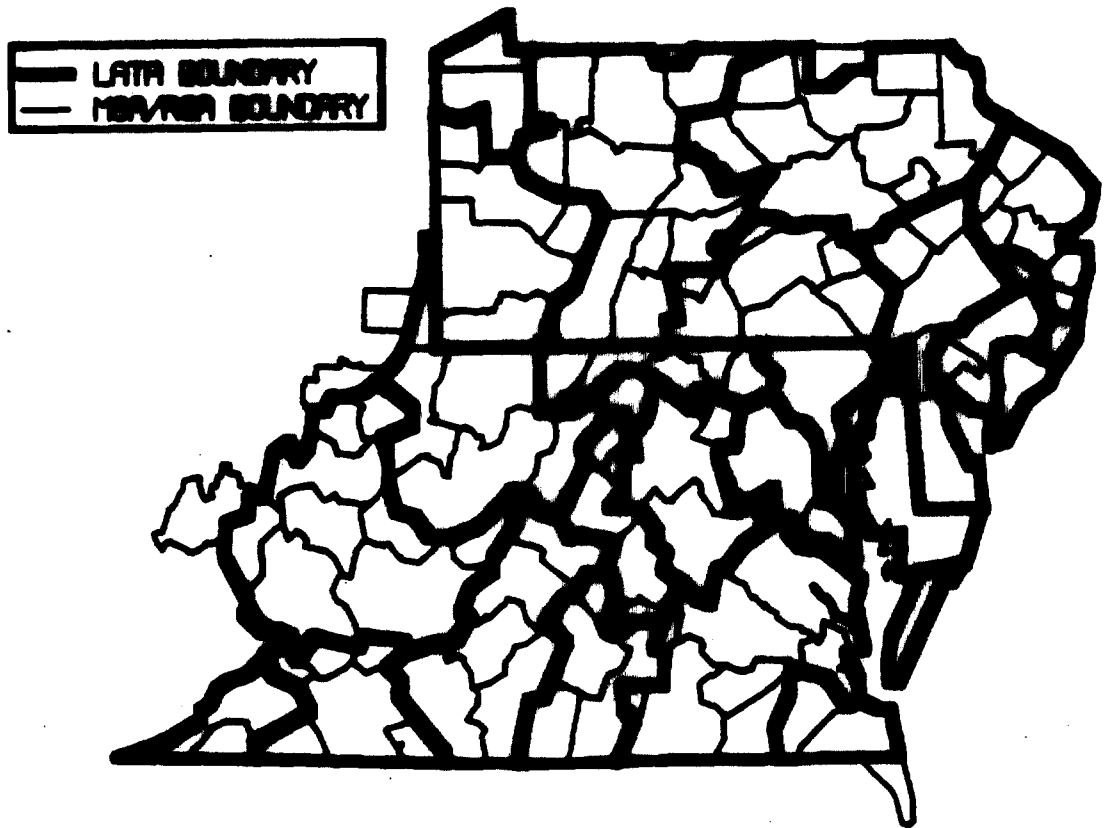
Upon review of the attached LATA maps, I also determined that of the 428 total RSAs, approximately 270, or 63%, contain at least one LATA intersection within the individual RSA areas defined by the FCC.

Southern Aff. at 3.

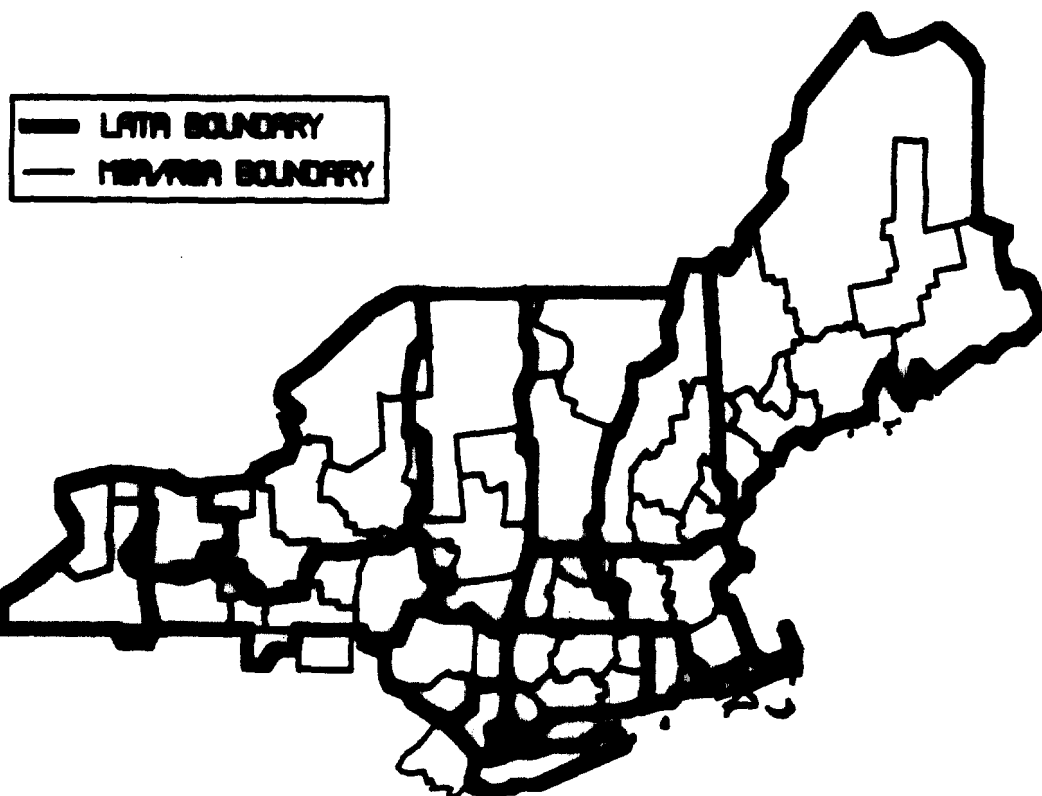
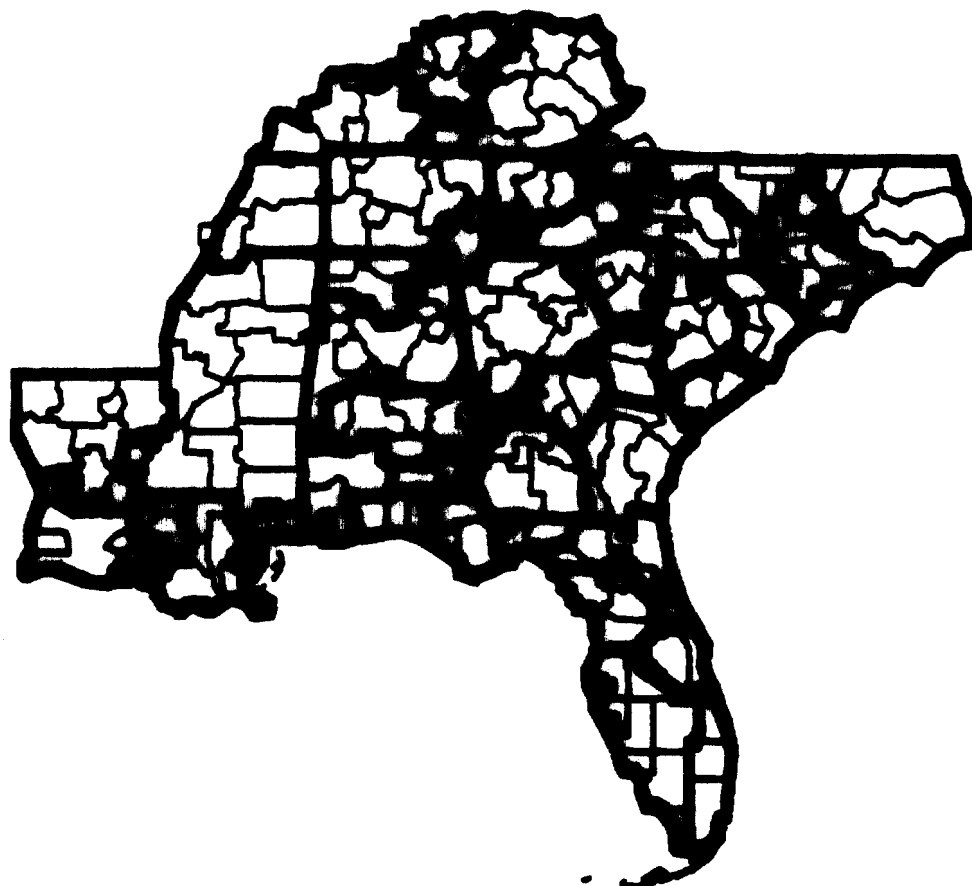
²⁰⁵These problems have proved particularly acute for US West which, through a subsidiary, has acquired equity interests in 87 RSAs and holds a non-managing minority interest in 67 other RSAs. At least 54 of those RSAs have boundaries that intersect more than one LATA boundary. US West accordingly sought a waiver in December of 1988 to provide interLATA cellular service within RSAs and to permit certain affiliated cellular systems to own interexchange links. When the Department failed to act on that request, US West sought relief directly from the decree court. In August 1990, the court denied US West's request on the ground that DOJ had not yet taken a position on the issue. Memorandum and Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Aug. 8, 1990). In March 1991, DOJ recommended that the court grant US West's request, as well as similar waiver requests submitted by other RHCs. The court has yet to act upon the Department's motion.



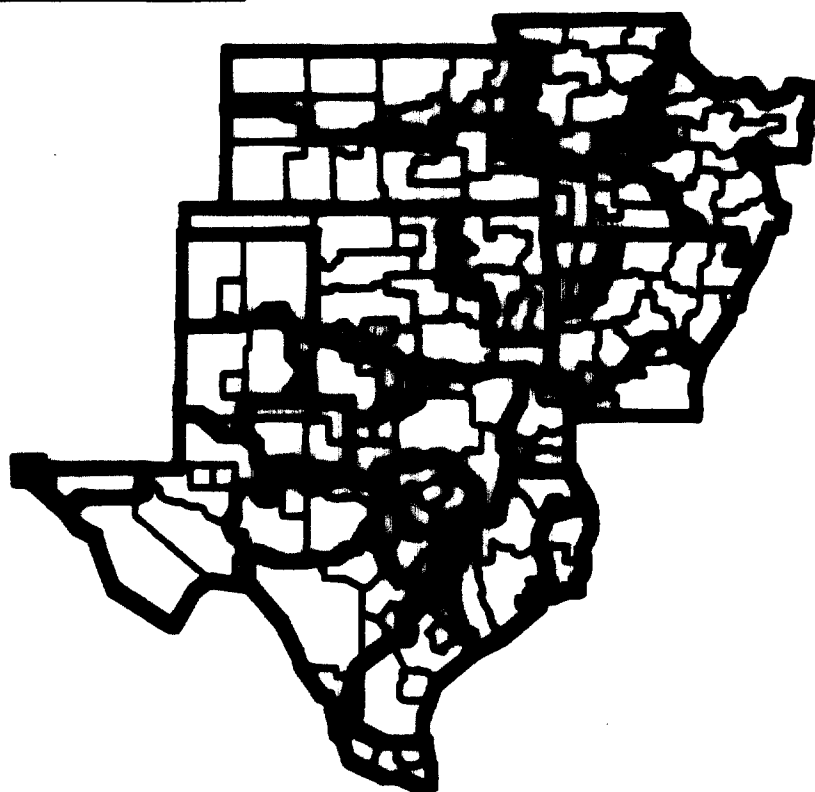
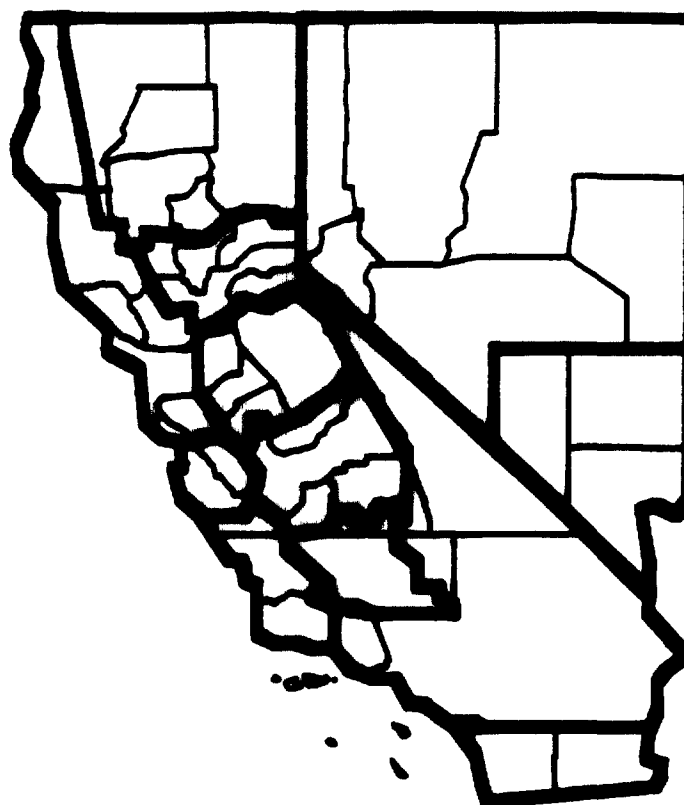
Map 2.10. FCC Licensing of MSAs.



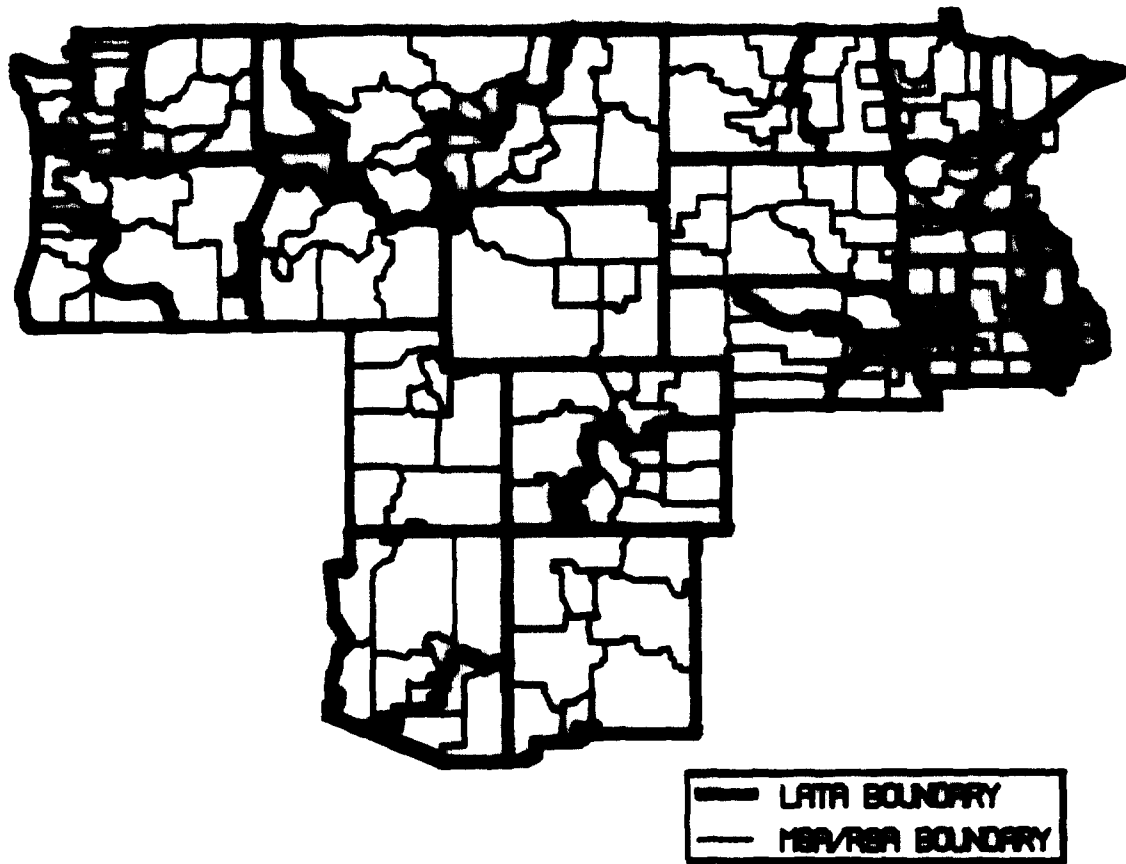
Map 2.11(a). Overlap Between MSA/RSA and LATA Boundaries in the Ameritech Region.
Map 2.11(b). Overlap Between MSA/RSA and LATA Boundaries in the Bell Atlantic Region.



Map 2.11(c). Overlap Between MSA/RSA and LATA Boundaries in the BellSouth Region.
Map 2.11(d). Overlap Between MSA/RSA and LATA Boundaries in the NYNEX Region.



Map 2.11(e). Overlap Between MSA/RSA and LATA Boundaries in the Pacific Telesis Region.
Map 2.11(f). Overlap Between MSA/RSA and LATA Boundaries in the Southwestern Bell Region.



Map 2.11(g). Overlap Between MSA/RSA and LATA Boundaries In the US West Region.

The court granted integrated service waiver requests for nine specific metropolitan complexes in 1983 that extended beyond LATA boundaries,²⁰⁶ and it has continued to make minor extensions thereafter. **TABLE 2.7.** One of the first nine service areas to receive a service waiver, Baltimore-Washington, D.C., was further modified less than two years later.²⁰⁷ Since divestiture, the court has granted over 60 waiver requests for various cellular services, the bulk of them since 1988. **TABLE 2.8, MAP 2.12.** Many more requests are currently pending before the court and the Department of Justice, and the backlog of pending waiver requests has grown steadily.²⁰⁸ **TABLE 2.9.**

In 1987, the court granted NYNEX's waiver request (pending since February 8, 1985) to provide interLATA cellular services in several areas of New York, New Jersey, and Connecticut.²⁰⁹ On September 6, 1988, the court granted 8 interLATA waiver requests, some submitted to the Department as early as November 1986. The waivers allowed various RHCs to provide service across LATA boundaries in areas of Wisconsin, Illinois, Colorado, Kentucky, New Jersey, New Hampshire, and Massachusetts.²¹⁰

Several waivers allowing RHCs to provide interLATA cellular service have been granted in conjunction with acquisitions by the RHCs of out-of-region service areas. For example, the court held that with its acquisition of Metromedia, Southwestern Bell could provide interLATA services across the Chicago, Illinois and South Bend, Indiana LATAs and throughout the Baltimore, Maryland and Washington, D.C. CGSA, though the court required that interexchange transport be leased from an unaffiliated interexchange carrier.²¹¹

²⁰⁶578 F. Supp. 643.

²⁰⁷Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. June 25, 1985).

²⁰⁸For example, on June 1, 1985, nine cellular or paging requests were pending before the Department or the court. Two years later, on June 1, 1987, sixteen requests were pending. As of June 1, 1991, there are 28 pending waiver requests.

²⁰⁹*United States v. Western Elec. Co.*, 1987-1 Trade Cas. (CCH) ¶ 67,452 (D.D.C. 1987) (as a limited partner in the New York SMSA Limited Partnership, Bell Atlantic was also included in the waiver).

²¹⁰Orders, *United States v. Western Elec. Co.*, No. 82-1082 (D.D.C. Sept. 6, 1988).

²¹¹Memorandum and Order, *United States v. Western Elec. Co.*, No. 82-0192 (D.D.C. Sept. 22, 1987).